

UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION

PAMELA BUTLER,	)	
	)	
Plaintiff,	)	
	)	
vs.	)	Case No. 4:18-cv-01701-AGF
	)	
MALLINCKRODT LLC, et al.,	)	Lead Case
	)	
Defendants.	)	

**MEMORANDUM AND ORDER**

Plaintiffs Pamela Butler, Kenneth Koterba, Anthony Hines, and Emery David Walick, III assert public liability actions under the Price-Anderson Act (PAA), as amended, 42 U.S.C. §§ 2014, 2210. They filed four individual cases (the “*Butler* cases”) that have been consolidated before the undersigned for pretrial purposes only. These Plaintiffs allege that they developed cancer after being exposed to excessive radiation releases from improper handling of radioactive waste materials by Defendants Mallinckrodt LLC and Cotter Corporation at various times over the past half century.

Following the Court’s March 31, 2022 Memorandum and Order (ECF No. 104)<sup>1</sup> (“*Daubert* Order”)<sup>2</sup> partially excluding Plaintiffs’ expert witnesses, both Defendants have now moved (ECF Nos. 115 & 118) for summary judgment. For the reasons set forth below, the Court will grant both motions.

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<sup>1</sup> Unless otherwise indicated, all citations to documents in the record refer to documents filed in the lead case, No. 4:18-cv-01701-AGF.

<sup>2</sup> See *Daubert v. Merrell Dow Pharms., Inc.*, 509 U.S. 579 (1993).

## **BACKGROUND**

During World War II, Mallinckrodt contracted with the federal government to produce radioactive material for the Manhattan Project. In connection with this project, radioactive waste materials were stored in downtown St. Louis and at a storage site north of the St. Louis Airport known as “SLAPS.” The federal government’s Manhattan Engineer District (MED) acquired SLAPS in 1946.

The MED and its successor, the Atomic Energy Commission (AEC), operated and stored radioactive waste product at SLAPS from 1946 until July of 1953. The AEC contracted with Mallinckrodt to operate SLAPS beginning in July of 1953 and continuing until February 14, 1966. Throughout the 1950s, the AEC and Mallinckrodt began removing radioactive waste from SLAPS, but a substantial volume of waste material remained at SLAPS until it was transferred to an interim storage site in Hazelwood, Missouri, known as “Latty Avenue” or “HISS.”

Between 1969 and 1973, Cotter possessed and managed the radioactive waste at Latty Avenue. SLAPS, Latty Avenue, and other properties adjacent to Coldwater Creek—a creek that flowed near both sites—were included as part of the U.S. Army Corps of Engineers’ Formerly Utilized Sites Remedial Action Program (FUSRAP), an environmental remediation program addressing radiological contamination.

Plaintiffs lived or worked near these sites for many years dating back to the 1960s and frequently engaged in outdoor recreational activities in and around Coldwater Creek, SLAPS, and Latty Avenue. Each was subsequently diagnosed with cancer.

Butler lived near the sites from approximately 1983 to 1993 and thereafter continued to attend church and engage in outdoor recreational activities in the area. During this time period, Butler lived approximately 125 meters west of Coldwater Creek, would walk along the creek basin and collect rocks from the area, and would walk her dog in the ballfields where contamination was later discovered. Butler was diagnosed with breast cancer in 2016, at the age of 56.

Koterba lived near the sites from 1960 through 1975, and again from 1978 to present. Koterba's family residence was approximately 7.8 miles northeast of Latty Avenue, 1.9 miles southeast of the exit of Coldwater Creek, and 8.5 miles north, northeast of SLAPS. He spent most days during his childhood playing along the Coldwater Creek basin and fishing in and eating fish from, swimming in, and biking around the creek. Koterba was diagnosed with an intra-axial brainstem tumor in 2015, at the age of 58.

Hines lived near the sites from 1962 to 1974, and from 1975 to 1983. His family residence during this time was approximately 1.4 miles east of Latty Avenue, 1.6 miles east of the entrance to Coldwater Creek via Latty Avenue, and 1.65 miles north, northeast of SLAPS. As a child, he spent most days playing in, fishing in and eating fish from, and riding his bike in and around Coldwater Creek. He also played in the ballfields north of SLAPS. Hines was diagnosed with mantle cell lymphoma in 2015, at the age of 52.

Walick lived near the sites from approximately 1990 to 1998. His family residence was approximately 8 miles northeast of Latty Avenue, 2.6 miles southeast of

Coldwater Creek, and 7.75 miles north, northeast of SLAPS. Walick spent most days during this period playing along the Coldwater Creek basin, fishing in and eating fish from the creek, and biking around the creek. Walick was diagnosed with a type of brain tumor known as medulloblastoma in 2014, at the age of 23.

### **Mass Tort Litigation Filed in this Court Beginning in 2012**

Beginning in 2012, several hundred individuals with experiences similar to Plaintiffs here began filing suit against Mallinckrodt and Cotter. These well-publicized cases were consolidated before the undersigned for pretrial proceedings only, focused on common issues, under the lead case *McClurg et al. v. Mallinckrodt, LLC, et al.*, 4:12-CV-00361-AGF (the “*McClurg* cases”). Each plaintiff in the *McClurg* cases asserted a public liability action under the PAA.

Early on in the *McClurg* cases, the defendants moved for entry of a Case Management Order (“CMO”) patterned after *Lore v. Lone Pine Corp.*, No. L-33606-85, 1986 WL 637507 (N.J. Super. Ct. Law Div. Nov. 18, 1986) (“*Lone Pine*”).<sup>3</sup> The *McClurg* plaintiffs opposed that motion. After carefully considering the parties’ arguments and the needs of the cases, the undersigned ordered that in lieu of a full *Lone Pine* Order, the *McClurg* plaintiffs would be required to disclose to the defendants, within 60 days of filing suit, certain basic information about the nature of their claims, including a preliminary expert report regarding the plaintiffs’ alleged exposure to

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<sup>3</sup> In *Lone Pine*, the court required the plaintiffs in a mass toxic tort action to make a prima facie showing of exposure and causation before full discovery and other procedures were permitted. 1986 WL 637507, at \*1-2.

radiation. The Court also imposed a staggered discovery and pretrial schedule, based on the parties' identification of common issues that could be applicable to all or a substantial number of the hundreds of plaintiffs.

The *McClurg* cases then proceeded through extensive discovery that continued over several years. Eventually, most of the hundreds of *McClurg* plaintiffs entered into settlement negotiations with Defendants, and their cases were temporarily stayed while those negotiations were pending.

On October 15, 2018, Chief Judge Rodney W. Sippel issued an Administrative Order regarding Radionuclide Exposure Claims against Mallinckrodt LCC and/or Cotter Corporation (N.S.L.) (the "Administrative Order"), in order to address ongoing and future cases alleging claims similar to the *McClurg* cases. The Administrative Order directed that, on motion of a party and Order of the undersigned, such cases continue be consolidated before the undersigned for pretrial proceedings.

Likewise, on October 15, 2018, the undersigned entered CMO No. 14 with respect to such ongoing and future cases. This CMO expanded upon the early, *Lone-Pine*-like showing that the *McClurg* plaintiffs were required to make before proceeding with more detailed and expansive discovery. In particular, CMO No. 14 required more complete early expert disclosures in the form of case-specific expert reports addressing issues such as radiation dose and general and specific causation for the injuries alleged. The undersigned believed that CMO No. 14 was warranted based on the complexity of these consolidated cases, particularly with respect to causation, and on the undersigned's familiarity with the cases and the issues arising therefrom.

**Butler Plaintiffs' Lawsuits**

The four *Butler* cases at issue here were filed on October 5, 2018. As noted above, each Plaintiff asserted a public liability action under the PAA against Mallinckrodt and Cotter based on the alleged release of radioactive waste materials in and around St. Louis County.

Pursuant to the Administrative Order and after finding that the *Butler* cases involved the same defendants, the same claims, and, in fact, the same allegations verbatim as the complaints filed in the *McClurg* cases, the Court consolidated the *Butler* cases with the *McClurg* cases over the *Butler* Plaintiffs' opposition. See *McClurg*, 4:12-cv-00361-AGF, ECF No. 751 (E.D. Mo. Nov. 13, 2018). The Court found that consolidation was in the interest of judicial economy and convenience, would prevent the risk of inconsistent adjudications, and would reduce the burden on the parties. Moreover, the Court noted that consolidation would permit the *Butler* Plaintiffs to take advantage of the discovery produced by Defendants over the past several years of litigation in the *McClurg* cases. The Court was not persuaded by the *Butler* Plaintiffs' arguments against consolidation. The Court noted that, notwithstanding the Plaintiffs' arguments to the contrary, nothing in the consolidation Order deprived Plaintiffs of their choice of counsel and that strong reasons justified the requirement that Plaintiffs make a threshold showing supporting their claims of causation prior to engaging in protracted court proceedings. See *id.*

The Court thereafter set a schedule in the *Butler* cases for disclosures under CMO No. 14, as well for discovery and pretrial motions, such as motions to exclude expert

testimony under *Daubert*, 509 U.S. 579 and its progeny, and motions for summary judgment. Because the cases were consolidated to address common issues, for pretrial purposes only, the Court noted that following ruling on *Daubert* and summary judgment motions, it would transfer any remaining cases back to the original judge for trial.

The Court thereafter granted the *Butler* Plaintiffs several extensions of the case management schedule, amounting to approximately five months of additional time before these Plaintiffs were required to make their “early” expert disclosures under CMO No. 14. *See, e.g., McClurg*, Case No. 4:12-cv-00361-AGF, ECF No. 765 (E.D. Mo. Jan. 5, 2019). Plaintiffs’ experts also supplemented their reports months after the deadline for their expert disclosures. *See generally Daubert* Order, ECF No. 104 (discussing various supplemental reports disclosed throughout 2019).

On November 12, 2020, the Court also severed the *Butler* cases from the larger set of *McClurg* cases. *See* Order of Consolidation, ECF No. 32. The Court believed it prudent to sever and separately consolidate the *Butler* cases because by that point the *Butler* cases were the only cases not subject to the larger settlement negotiations and because the *Butler* cases were also subject to an automatic bankruptcy stay.<sup>4</sup>

### **Defendants’ *Daubert* Motions to Exclude Plaintiffs’ Experts**

The *Butler* Plaintiffs retained three expert witnesses to opine regarding causation and the other elements of their personal injury claims in this case. As noted above, the

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<sup>4</sup> An automatic stay was triggered by Mallinckrodt’s suggestion of bankruptcy. However, the bankruptcy court later lifted the stay in order to allow these cases to proceed. *See* ECF No. 42.

Court granted Defendants' *Daubert* motions to exclude the testimony of these expert witnesses in whole or in part.

Specifically, the Court excluded the entirety of expert James Clark's<sup>5</sup> testimony. The *Butler* Plaintiffs retained Clark to quantify the dose of radiation that each Plaintiff received from his or her exposure to the materials released by Defendants. Clark relied heavily on a public health assessment prepared by the U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry (the "ATSDR") titled "Public Health Assessment Evaluation of Community Exposure Related to Coldwater Creek, St. Louis Airport/Hazelwood Interim Storage Site (HISS)/Futura Coatings NPL Site" (the "ATSDR Report"). The ATSDR Report explicitly disclaimed its reliability for use in an individual's detailed dose reconstruction, noting that its public health driven methodology was not appropriate for use in such individual cases. But even applying its public health driven approach, the ATSDR Report did not find an elevated risk of the particular types of cancers at issue in this case (breast cancer, brain cancer, or mantle cell lymphoma). For reasons explained in detail in the Court's *Daubert* Order, the Court found that Clark's opinions were unreliable and therefore inadmissible. *See generally Daubert* Order, ECF No. 104 at 32-37.

The Court also excluded in part the testimony of Plaintiffs' other two experts, James Wells and Howard Hu. Plaintiffs retained Wells to provide expert opinion testimony concerning the nature and extent of contamination around the SLAPS and

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<sup>5</sup> Clark had been previously retained by and was working with the *McClurg* plaintiffs prior to their settlement.



Latty Avenue sites, as well as properties in the vicinity of these sites, including Coldwater Creek. The Court excluded Wells's opinions that Defendants breached certain federal radiation safety standards, finding such opinions unreliable. But the Court declined to exclude Wells's remaining opinions about the existence of contamination generally at the relevant sites, the pathways through which the contamination spread, and the allocation of responsibility as between Mallinckrodt and Cotter. *See id.* at 26-32.

Plaintiffs retained Hu as their medical expert to testify regarding general and specific causation.<sup>6</sup> As to general causation, Hu opined that ionizing radiation can potentially cause the cancers at issue here, namely, cancer to the breast or brain, or mantle cell lymphoma.

As to specific causation, Hu ruled out certain other causes of Plaintiffs' cancers, such as family history. Hu then opined that each Plaintiff's exposure to thorium-230, radium-226, and uranium-238 from Coldwater Creek more likely than not caused or contributed toward the development of his or her cancer. But in arriving at this opinion, Hu relied solely on Clark's calculations regarding each Plaintiff's dose and exposure to the radionuclides in excess of natural background levels.

The Court explained why Clark's calculations were unreliable and noted that Hu cited no other evidence supporting his finding that each Plaintiff was exposed to

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<sup>6</sup> "General causation is a showing that the drug or chemical is capable of causing the type of harm from which the plaintiff suffers. Specific causation is evidence that the drug or chemical in fact caused the harm from which the plaintiff suffers." *Junk v. Terminix Int'l Co.*, 628 F.3d 439, 450 (8th Cir. 2010) (internal citations omitted).

radiation at a level sufficient to cause his or her particular cancer. In fact, Hu admitted that his opinions in this regard were “only as good as [Clark’s] numbers” and that he did not attempt to validate Clark’s calculations. *See* Defs.’ Ex. B, Hu Dep., ECF No. 52-5 at 95–97, 119-20. Because the Court found Clark’s calculations unreliable, the Court also excluded as unreliable Hu’s specific causation opinions that radiation caused or contributed to Plaintiffs’ cancers. However, the Court declined to exclude Hu’s general causation opinion or those portions of Hu’s specific causation opinions that ruled out certain other causes of Plaintiffs’ cancers. *See Daubert* Order, ECF No. 104 at 37-40.

Defendants have now moved for summary judgment, arguing that the Court’s *Daubert* Order forecloses Plaintiffs’ claims as a matter of law.

### **ARGUMENTS OF THE PARTIES**

Mallinckrodt argues that Plaintiffs’ public liability actions fail as a matter of law because, without expert testimony, Plaintiffs cannot establish that (1) Mallinckrodt breached any applicable federal regulation, (2) Plaintiffs were exposed to radiation in an amount greater than anyone else, i.e., an amount above natural background levels, or (3) Plaintiffs’ exposure to radiation from Mallinckrodt’s operations caused their claimed illnesses.

Cotter likewise argues that Plaintiffs’ claims fail as a matter of law because, after the exclusion of the expert opinions, Plaintiffs cannot establish that (1) Cotter breached any federal regulation, (2) Plaintiffs were exposed to radiation above the applicable

federal limit,<sup>7</sup> (3) Plaintiffs were exposed to radiation above natural background levels, or (4) Plaintiffs' cancers were caused by radiation exposure.

In response, Plaintiffs argue that they have sufficient evidence of causation regardless of the Court's *Daubert* Order. Plaintiffs specifically rely on the portions of Wells's and Hu's testimony that were not excluded, Plaintiffs' own testimony, and the ATSDR and other public reports. Plaintiffs argue this evidence will demonstrate that even low levels of exposure to radiation can cause the cancers at issue here, that Plaintiffs lived and recreated in areas found to have extensive radioactive contamination, and that other causes of such cancers have been ruled out. From these facts, Plaintiffs contend that a jury could reasonably find general and specific causation.

Plaintiffs likewise argue that the evidence is sufficient to demonstrate a breach of the standard of care. Specifically, Plaintiffs argue that because the AEC did not have authority to regulate this radioactive waste until 1978, no federal standard of care applies and both Mallinckrodt and Cotter are strictly liable. As to Cotter, Plaintiffs further argue that, even if a federal limit applied, Wells's calculations sufficiently demonstrate a breach of such limit and that the Court should reconsider its *Daubert* Order in this regard.

Finally, Plaintiffs contend that the Court should reconsider its *Daubert* Order

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<sup>7</sup> The parties dispute whether Plaintiffs are required to make such a showing, and there is support in the caselaw for Plaintiffs' contention that they are not. *See, e.g., In re TMI*, 67 F.3d 1103, 1119 (3d Cir. 1995) (holding that plaintiffs in a public liability action must prove: "1) defendants released radiation into the environment in excess of the §§ 20.105 or 20.106 levels; 2) plaintiffs were exposed to this radiation (*although not necessarily at the levels prohibited by §§ 20.105 and 20.106*); 3) plaintiffs have injuries; and 4) radiation was the cause of those injuries") (emphasis added).

entirely because the Court's early disclosure requirements under CMO No. 14 unduly prejudiced Plaintiffs. Plaintiffs note that on April 12, 2022, after the Court issued its *Daubert* Order and shortly before the instant summary judgment motions were filed, Chief Judge Sippel vacated the Administrative Order. *See* ECF No. 111. Chief Judge Sippel found that because the *McClurg* cases were by that time closed following settlement, and because the four remaining *Butler* cases had nearly completed the pretrial proceedings for which they were consolidated, it would no longer achieve efficiency for the Court or the parties to transfer future related cases to the undersigned for consolidated pretrial proceedings. *Id.* Plaintiffs argue that, in light of this change in circumstance, the Court should vacate its *Daubert* Order and instead grant Plaintiffs leave to amend their expert reports.<sup>8</sup>

## **DISCUSSION**

### **Consolidation and CMO No. 14**

As an initial matter, the Court rejects Plaintiffs' argument that consolidation and/or the entry of CMO No. 14 unfairly prejudiced Plaintiffs. The Court fully explained the reasons why consolidation and early disclosure of causation-related evidence were warranted in this case. The Court carefully considered the arguments that Plaintiffs raised in opposition to consolidation and early disclosures at the time the cases were first consolidated and again now. The Court continues to believe that it proceeded in the manner that best served the interests of judicial economy and did not unfairly

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<sup>8</sup> Plaintiffs have not explained what such amendment would entail or how amendment would cure the deficiencies noted in the Court's *Daubert* Order.

prejudice any party; to the contrary, consolidation helped expedite discovery in this case by giving Plaintiffs immediate access to the voluminous discovery produced by Defendants over several years in the *McClurg* cases.

Moreover, as Defendants note, notwithstanding the entry of CMO No. 14, the Court significantly extended the case management schedule such that Plaintiffs had several months after filing their lawsuits to disclose their expert reports. Had Plaintiffs needed additional time, the Court would have considered such a request. But they made no such request. As such, Plaintiffs have not provided sufficient justification to warrant reconsideration of the Court's *Daubert* Order or further supplementation of their expert reports at this late stage.

Nor does Chief Judge Sippel's recent decision to vacate the Administrative Order warrant reconsideration of the *Daubert* Order or other rulings of this Court. The Court has continuously evaluated the needs of these complex cases as they have progressed and has entered Orders believed to best serve the interests of the parties and judicial administration at various points in time. Chief Judge Sippel's vacatur of the Administrative Order in April of 2022 was based on the state of these cases at that time, and was plainly intended to apply to newly-filed related cases or related cases that may be filed in the future. It was not meant to apply retroactively or to undo the efficiency achieved by prior consolidations. Thus, the Court's *Daubert* Order and other case management rulings will stand, and the Court turns now to the merits of Defendants' summary judgment motions.

## **Legal Standard**

Summary judgment is appropriate “if the movant shows that there is no genuine dispute as to any material fact and the movant is entitled to judgment as a matter of law.” Fed. R. Civ. P. 56(a). “[T]he burden of demonstrating there are no genuine issues of material fact rests on the moving party, and we review the evidence and the inferences which reasonably may be drawn from the evidence in the light most favorable to the nonmoving party.” *Allard v. Baldwin*, 779 F.3d 768, 771 (8th Cir. 2015) (citation omitted). To avoid summary judgment, the nonmovant has the “burden of presenting evidence sufficiently supporting the disputed material facts that a reasonable jury could return a verdict in their favor.” *Gregory v. City of Rogers*, 974 F.2d 1006, 1010 (8th Cir. 1992) (citation omitted). “Where the record taken as a whole could not lead a rational trier of fact to find for the non-moving party, there is no genuine issue for trial.” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986) (internal quotation marks and citation omitted).

## **Public Liability Action Under the PAA**

The PAA creates federal jurisdiction for “any public liability action arising out of or resulting from a nuclear incident” in the district court located in the district where the incident occurred. 42 U.S.C. § 2210(n)(2); *see also In re Cotter Corp., (N.S.L.)*, 22 F.4th 788, 793 (8th Cir. 2022). The “public-liability provision create[es] a federal cause of action for injuries caused by nuclear exposure.” *Halbrook v. Mallinckrodt, LLC*, 888 F.3d 971, 974 (8th Cir. 2018). This provision incorporates substantive state-law standards for liability “unless such law is inconsistent with the provisions of [the

PAA].” 42 U.S.C. § 2014(hh).

### **Causation Under Missouri Law and the PAA**

Under Missouri law, “[t]o establish causation, a plaintiff must show that the defendant’s conduct was both the cause in fact and the proximate or legal cause of her injuries.” *Love v. Waring*, 560 S.W.3d 614, 619 (Mo. Ct. App. 2018) (citation omitted). To establish cause in fact, “the conduct of the defendant must be a substantial factor in causing the injury.” *Poage v. Crane Co.*, 523 S.W.3d 496, 509 (Mo. Ct. App. 2017) (citing *Callahan v. Cardinal Glennon Hosp.*, 863 S.W.2d 852, 862-63 (Mo. 1993)). To demonstrate proximate cause, the plaintiff must show that her injuries were the “natural and probable consequence of the defendant’s conduct.” *Love*, 560 S.W.3d at 619 (citation omitted).

“In a toxic tort case, the plaintiff’s burden includes proof of “an exposure to an identified harmful substance significant enough to activate disease, expert opinion that the disease found in plaintiff is consistent with exposure to the harmful substance, and proof that defendant was responsible for the etiologic agent of the disease diagnosed in plaintiff.” *Kirk v. Schaeffler Grp. USA, Inc.*, 887 F.3d 376, 390 (8th Cir. 2018) (interpreting Missouri law) (cleaned up and citations omitted).

### **Expert Testimony Required to Establish Causation**

Under Missouri law, “in cases where there is a sophisticated injury, requiring surgical intervention or other highly scientific technique for diagnosis, proof of causation is not within a lay person’s understanding.” *Love*, 560 S.W.3d at 619 (citation omitted). In other words, “expert medical testimony is necessary to prove a causal link

between a health care provider’s negligence and the plaintiff’s injuries except where the want of skill or lack of care is so apparent as to require only common knowledge and experience to understand and judge it.” *Id.* (cleaned up and citation omitted).<sup>9</sup>

A case like this, alleging cancer as a result of exposure to radiation, is precisely “the type of highly complex case where expert medical testimony is necessary to establish causation.” *See id.* at 621. A lay jury simply does not possess knowledge of the intricacies of such subject matter to reach an opinion regarding causation without assistance from an expert. *See Pro Serv. Auto., L.L.C. v. Lenan Corp.*, 469 F.3d 1210, 1214 (8th Cir. 2006) (holding that under Missouri law, expert testimony is necessary where the lay jury does not possess the experience or knowledge of the subject matter sufficient to enable them to reach an intelligent opinion without help”) (cleaned up and citations omitted); *Junk*, 628 F.3d at 450 (holding that because “expert medical and toxicological testimony is unquestionably required to assist the jury” to prove causation in a toxic tort case, the exclusion of the plaintiff’s specific causation expert warranted summary judgment in favor of the defendant) (citation omitted); *Ridpath v. Pederson*, 407 F.3d 934, 936 (8th Cir. 2005) (affirming summary judgment where the plaintiff did not offer expert medical testimony to prove causation of the alleged injuries because it was “not a case where a lay jury by its common sense and experience may reliably find

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<sup>9</sup> This rule is not unique to Missouri. “[A]ll fifty states typically require expert testimony to prove causation where the causal relationship is outside the common knowledge of lay jurors . . . .” *In re Lipitor (Atorvastatin Calcium) Mktg., Sales Pracs. & Prod. Liab. Litig. (No II) MDL 2502*, 892 F.3d 624, 647 (4th Cir. 2018) (citation omitted).



that the injury occurred as a result of the [alleged tort]”) (internal quotation marks and citations omitted).

Plaintiffs argue that Hu’s general causation testimony, coupled with his ruling out of certain other causes of their cancers, is sufficient. Not so. Hu’s admissible testimony is limited to establishing that exposure to ionizing radiation can potentially lead to an increased risk of these types of cancer, and that these cancers have not been caused by certain other factors, such as family history.

But there is no expert testimony or other sufficiently reliable evidence from which a jury could find that these particular Plaintiffs were in fact exposed to a sufficient level of ionizing radiation to cause their cancers. A lay jury would have no reasonable basis to draw such a conclusion from the mere fact that Plaintiffs lived, recreated, or worked near the sites where radioactive contamination was found. Expert testimony is needed to establish at least a probable estimated level of each Plaintiff’s individual exposure and to establish that such level of exposure is correlated with an increased risk of that particular Plaintiff’s cancer.<sup>10</sup> This is especially true in light of the undisputed fact that background levels of radiation naturally occur in the environment. *See, e.g., McMunn v. Babcock & Wilcox Power Generation Grp., Inc.*, 869 F.3d 246, 277 (3d Cir. 2017) (McKee, J., concurring) (“Unlike with PCBs, asbestos or tobacco byproducts, we are constantly exposed to radiation on a daily basis. We are exposed from numerous natural

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<sup>10</sup> It does not help Plaintiffs’ cause that the ATSDR report on which they heavily rely did not find an elevated risk of cancer to the organs at issue here.

sources including the sun, or naturally occurring radioactive elements such as radon in the ground surrounding our homes.”).

Other courts have come to same conclusion with respect to similar public liability actions alleging cancer due to radiation exposure. For example, in *McMunn*, the plaintiffs asserted a similar public liability action alleging cancer due to radiation released by a nuclear facility dating back to the 1960s. *McMunn*, 869 F.3d at 268–69. The plaintiffs argued that they could demonstrate causation notwithstanding the lack of expert testimony estimating each plaintiff’s approximate dose of radiation because Pennsylvania law (like Missouri law) only required proof that the defendant’s acts were a “substantial factor” the causing a plaintiff’s injury. *Id.* at 269.

The Third Circuit rejected that argument. *Id.* It reasoned that the plaintiffs’ theory merely assumed that “anyone who lived in the area of the [nuclear] facility was exposed to a *sufficient* amount of radiation” to cause their cancers. *Id.* at 271 (emphasis in original). The plaintiffs’ expert offered “only a perfunctory narrative for each [p]laintiff, and an unexplained conclusion that radiation was the cause, presumably because each [p]laintiff was exposed to *some* radiation.” *Id.* at 272 (emphasis in original). But the appellate court held that “[s]uch conclusory opinions of medical causation, even by qualified experts, are insufficient to establish causation of cancer by exposure to uranium effluent.” *Id.*

The Third Circuit posed the following hypothetical:

Consider how a trial would unfold. Plaintiffs would present a general causation expert who opines that any amount of ionizing radiation could cause cancer. Then, Plaintiffs would present [an expert] who would state that

each of the Plaintiffs lived or worked near the Apollo [nuclear] facility and would therefore be assumed to have been exposed to some radiation from airborne uranium effluent from the Apollo facility. [The expert] would then presumably testify that he is certain that the additional radiation specifically from the airborne uranium was a substantial factor in causing the cancer of each of the Plaintiffs. Finally, the jury would decide whether more than a dozen different illnesses suffered by more than seventy people were each caused by the radiation from the airborne uranium from the Apollo facility.

How? Without any ability to compare any plaintiff's frequency, proximity, or regularity to any evidence showing that a given frequency, proximity, or regularity is correlated with any particular increase in risk—let alone the ability to perform the ideal comparison between dose and the dose-responsiveness of a given illness—the jury would be engaging in rank speculation.

*Id.* at 272–73.<sup>11</sup>

This is essentially the type of trial that Plaintiffs argue should proceed here. But on the evidence that Plaintiffs have presented—which does not include any expert testimony establishing Plaintiffs' actual level of exposure (or at least a probable estimate thereof), establishing that the levels exceeded natural background levels, and establishing

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<sup>11</sup> Other circuits have reached the same conclusion with respect to similarly complex toxic tort actions. *See, e.g., McGill v. BP Expl. & Prod., Inc.*, 830 F. App'x 430, 433–34 (5th Cir. 2020) (holding that while toxic tort plaintiffs may not be required to “determine the precise level of exposure,” summary judgment was warranted where the plaintiff's expert did not “analyze the plaintiff's probable exposure level” and there was no other “non-speculative evidence that [the alleged] exposure cause[d] the types of illnesses [the plaintiff] suffer[ed] from”); *Thompson v. S. Pac. Transp. Co.*, 809 F.2d 1167, 1169 (5th Cir. 1987) (holding that evidence was insufficient as a matter of law to establish link of causation between a worker's exposure to dioxin and development of worker's porphyria where expert testimony merely established “that someone working around dioxin-contaminated soil might develop porphyria” and that the plaintiff “worked at a site where dioxin was found” and therefore “‘definitely could have come into contact with it,’” but the expert did not specifically address “the amount or duration of the plaintiff's exposure” so as to reliably demonstrate causation).


that such level of exposure is correlated with an increased risk of their cancers—a reasonable jury could not find specific causation. As such, Defendants are entitled to summary judgment, and the Court need not reach Defendants’ other arguments.

**CONCLUSION**

Accordingly,

**IT IS HEREBY ORDERED** that Defendants’ motions for summary judgment are **GRANTED**. ECF Nos. 115 & 118.

All claims against all parties having been resolved, a separate Judgment shall accompany this Memorandum and Order.

  
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AUDREY G. FLEISSIG  
UNITED STATES DISTRICT JUDGE

Dated this 30th day of September, 2022.